

**METHODS, APPARATUS AND COMPUTER PROGRAMS FOR ENHANCED ACCESS
TO RESOURCES WITHIN A NETWORK**

ABSTRACT

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Provided are methods, apparatus and computer programs for enhanced access to resources within a network, including for controlling use of bandwidth-sensitive connections within a network and/or for automated recovery. Hash values are used as 'unique' identifiers for resources distributed across a network, and each one of a set of pool servers store the hash values for a set 10 of computers within a LAN. When a resource is required, a hash value representing the resource can be retrieved and compared with hash values stored at a pool server to determine whether the pool server holds a matching hash value. Any such matching hash value found on the pool server represents an identification of a local copy of the required resource, because of the uniqueness property of secure hash values. The information within the pool server can be used to access the 15 required resource. If a large resource such as a BLOB or new version of a computer program can be obtained from another computer within a LAN, a reduction in reliance on bandwidth-sensitive Internet connections and reduced load on remote servers becomes possible.